

campa tersa L. with three disks on its proboscis, about 4^{mm} from the base. At Champaign, Ill., Mr. M. B. Waite showed me a specimen of *Philampelus achemon* Dru., which he had taken on the flowers. It had pollinia about 5^{mm} from the base of the proboscis.

Carlinville, Illinois.

Notes on North American Umbelliferae. III.

JOHN M. COULTER and J. N. ROSE.

WITH PLATE V.

The two preceding papers of this series were published in this journal November, 1889, and October, 1890. The present paper is a report upon the Umbelliferae of Mr. John Donnell Smith's third distribution of Guatemalan plants. Most of the species were sent by H. Th. Heyde and Ernst Lux, who have made extensive collections for Mr. Smith. We have previously reported upon Guatemalan Umbelliferae in this journal for January and October, 1890.

HYDROCOTYLE MEXICANA Cham. & Schl.—Rio Negro, Dept. Quiché, at an altitude of 3,600^{ft}, June, 1892, no. 3,350. Collected by Heyde & Lux.

HYDROCOTYLE PROLIFERA Kell.—Amatitlan, Dept. Amatitlan, at an altitude of 3,990^{ft}, May, 1892, no. 2,668. Collected by John Donnell Smith. This seems to be the same species collected at this place by Mr. Smith in 1889, and referred to in BOT. GAZ. XV. 259. Also from Santa Rosa, Dept. Santa Rosa, at an altitude of 3,000 to 4,000^{ft}, April, 1892, no. 3,349. Collected by Heyde & Lux. This plant is less proliferous, the umbel sometimes being simple as in *H. umbellata*.

SPANANTHE PANICULATA Jacq.—Santa Rosa, Dept. Santa Rosa, at an altitude of 3,000 to 4,000^{ft}, June 1892, no. 3,351. Collected by Heyde & Lux.

ERYNGIUM CARLINÆ Delar.—San Miguel Uspantán, Dept. Quiché, at an altitude of 6,000 to 12,000^{ft}, April, 1892, no. 3,356. Collected by Heyde & Lux.

SANICULA MEXICANA DC.—San Miguel Uspantán, Dept. Quiché, at an altitude of 6,000 to 12,000^{ft}, April, 1892, no. 3,357. Collected by Heyde & Lux.

ARRACACIA DONNELLSMITHII C. & R.—Volcan de Agua, Dept. Zacatepequez, at an altitude of 10,000 ft. Collected near the type locality by W. C. Shannon, June, 1892.

Arracacia Luxeana, n. sp.—Probably a tall perennial, branching, glabrous: leaves ternate to triternate; petioles wholly inflated; leaflets ovate to lanceolate, 2.5 to 7.5^{cm} long, sharply serrate, glabrous: peduncles short (10 to 12^{cm} long) or wanting: umbel somewhat unequally 15 to 30-rayed, with involucre wanting or of a single leaflet; involucels four to eight, foliaceous, lanceolate, sharply serrate, often 2.5^{cm} long; rays 5 to 10^{cm} long; pedicels 8 to 14^{mm} long: fruit ovate, acute, 6 to 8^{mm} long, glabrous, flattened laterally, with slender conical stylopodium: carpel terete, with five prominent ribs; commissure narrow; oil tubes solitary in the intervals, two on the commissural side: seed with deeply sulcate face and furrowed under the intervals.—In the forest near San Miguel Uspantán, Dept. Quiché, at an altitude of 6,000 to 12,000^{ft}, April, 1892, no. 3,354. Collected by Lux.

EULOPHUS PEUCEDANOIDES Benth. & Hook.—Santa Rosa, Dept. Santa Rosa, at an altitude of 3,000 to 4,000^{ft}, May, 1892, no. 3,353. Collected by Heyde & Lux.

ENANTIOPHYLLA, n. gen.—Calyx-teeth obsolete. Fruit oblanceolate, flattened dorsally, glabrous. Carpel strongly flattened dorsally: dorsal and intermediate ribs prominent, acute; lateral ribs winged. Stylopodium slender, conical; styles furrowed on ventral face, slightly thickened above but not capitate. Oil-tubes solitary in the intervals, two on the commissural face. Seed strongly flattened dorsally, with a broad, shallow excavate face and furrowed under the intervals.—Tall glabrous perennials, with opposite ternately-compound leaves, lanceolate acute leaflets, linear bracts and bractlets, and white (?) flowers.

This genus belongs to Bentham and Hooker's subtribe ANGELICEÆ. From *Angelica* and *Prionosciadium* it differs chiefly in its conical stylopodium and opposite leaves. In fact, in the latter character it differs from most genera of *Umbelliferae*, and has suggested the generic name. The genus is peculiar in having the carpel developed at the base into a broad stipe or foot, much as in Dr. Robinson's new genus *Coulterophytum*, but not so marked. It has several other characters in common with the latter genus, but has a

more compressed fruit and carpel, prominent dorsal and intermediate ribs and winged lateral ones, etc., etc.

Enantiophylla Heydeana, n. sp. Plate V.—From 12 to 15^{dm} high and much branched: leaves large, 3-ternate or 2-ternate-pinnate, or the upper ones simply ternate or pinnate; leaflets lanceolate, acuminate, 5 to 7.5^{cm} long, glabrous above, paler and minutely scabrous on the veins, sharply and finely serrate; petiole broad and inflated: inflorescence large; upper branches verticillate, terminated by an umbel; peduncle 3 to 7.5^{cm} long; rays 12 to 30^{mm} long; pedicels 6 to 8^{mm} long; bracts of involucre and involucrel several, linear, and with scarious margins: fruit 10^{mm} long; wings of lateral ribs about as broad as body; the dorsal ribs sharp and equal.—Collected by Rosalió Gómez, in fruit, at Santiago, Depart. Zacatepequez, at an altitude of 6,500^{ft}, 1891; and by Heyde, in flower, along the banks of the Rio Esclavo (where it is said to be common) near Santa Rosa, Depart. Santa Rosa, at an altitude of 3,000^{ft}, May, 1892. Distributed by John Donnell Smith under nos. 788 and 3,352 respectively.

CORIANDRUM SATIVUM L.—Introduced. Santa Rosa, Dept. Santa Rosa, at an altitude of 3,000^{ft}, July, 1892, no. 3,347. Collected by Heyde and Lux.

DAUCUS MONTANUS Willd.—San Miguel Uspantán, Dept. Quiché, at an altitude of 6,000 to 12,000^{ft}, April, 1892, no. 3,355. Collected by Heyde & Lux.

Bloomington, Ind., and Washington, D. C.

Influence of anæsthetics on plant transpiration.¹

ALBERT SCHNEIDER.

WITH PLATE VI.

I. Historical and critical.

Recently Jumelle conducted some very interesting experiments on the influence of anæsthetics on plant transpiration. He made an extensive study of plant chemism, chlorophyll-function and transpiration, which led him to give his final report on plant anæsthesia in the July number, 1891, of the

¹The researches described in this paper were carried on in the laboratories of physiological botany of the University of Minnesota at Minneapolis.